

In the Specification

Please amend the specification as follows:

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[0033] Furthermore, those skilled in the art will understand that the system may operate with any of a variety of commercially available medical endoscopes which may include, for example, a proximal handle portion 22, an elongated flexible body portion 24 through which one or more interior lumen extend for accommodating, for example, a fiber optic bundle or other image transmission structure, a working channel for the grasping device 30, etc. Those skilled in the art will understand that the fiber optic bundle (or other image transmitting structure) allows a user to remotely visually monitor a field of view at the distal end of the endoscope (e.g., an operative site S within the esophagus E). As would be further understood by those of skill in the art, the tissue grasping device 30 may include a handle portion 32, an elongated flexible body portion 34 and a pair of opposable jaws 36, which consists of first and second opposable jaws 36a and 36b.

[0034] In use as shown in Figs. 2a - 2c, the surgical stapling apparatus 10 and the flexible endoscope 20 are introduced into a patient's mouth and advanced into the esophagus to the operative site S under visual guidance from the endoscope 20. Once at the site S, the operator maneuvers the stapling assembly 16 into a desired position relative to the tissue to be resected. Those skilled in the art will understand that the stapling assembly 16 may be coupled to the handle portion 22 by a cable steering system (not shown) substantially as included in commercially available endoscopes to allow the remote maneuvering and positioning of the stapling assembly 16. The jaws 17 of the stapling assembly 16 are then opened to a tissue receiving position as shown in Fig. 3 and the grasping device 30 is advanced from the distal end of the endoscope 20. The jaws 36a and 36b are rotated away from one another by manipulation of the grasper handle portion 32 and the tissue T to be resected is grasped by closing the jaws 36a, 36b. The grasping device 30 is then withdrawn into the working channel of the endoscope

20 to pull the tissue T into position between the jaws 17 of the stapling assembly 16 and the jaws 17 are closed to clamp the tissue T in place between the staple carrying portion 40 and the staple forming portion 50. Those skilled in the art will understand that the tissue T is preferably drawn between the jaws 17 so that a margin of healthy tissue is positioned between the staple carrying portion 40 and the staple forming portion 50 to ensure that all of the diseased or damaged tissue T is removed. Those skilled in the art will understand that this may be visually confirmed through the use of [the] a vision system 55 of the endoscope as shown in Fig. 2b.

[0035] As shown in Fig. 2c, once the tissue T has been properly positioned between the jaws 17, the jaws 17 are grossly approximated and are then finely approximated using a translating clamping member 60, illustrated in detail in Figs. 16 - 18. As shown in Figs. 3, 4 and 12, an illustrative embodiment of the system according to the present invention includes an actuation cable 44 to facilitate gross approximation of the jaws 17 via actuation of an actuator knob 38. The actuation cable 44 may be secured to the one of the jaws 17 including, for example, the staple carrying portion 40 by a member 75, which may, for example be a spindle, capstan or other member around which cable 44 loops. The cable 44 ~~and~~ is operatively coupled to the other jaw 17 including the staple forming portion 50 by a member 85, which is substantially similar to the member 75 and ~~which may, for example, be a spindle, capstan or other member~~ around which the cable 44 passes to change direction to generate the clamping force to draw the jaws 17 together. Furthermore, an overhanging flange 98 at a proximal end of the staple carrying portion 40 acts as a tissue shield preventing the target tissue T from entering into the joint between the jaws 17.

[0036] As shown in Figs. 3 - 7, to actuate the clamping member 60 to finely approximate the jaws 17, the lower clamping handle 12a is actuated in the direction of the arrow in Fig. 5 to cause the integral gear rack 62a to turn pinion gear 62b which rotates elongated drive cable 64. As shown in Fig. 7, the drive cable 64 is coupled to a drive screw 63 so that rotation of the drive cable 64 rotates the drive screw 63 interacting with a geared surface 65 and moving the clamping member 60 distally as shown in Fig. 18. This finely approximates the jaws 17 of the stapling assembly 16 whereby a tissue contacting surface of the staple carrying portion 40 and a tissue

contacting surface of the staple forming portion 50 are brought into cooperative alignment, tightly clamping the tissue therebetween. Those skilled in the art will understand that alternative sources of power (e.g., electrical, hydraulic, pneumatic, etc.) may be applied to drive the jaws 17 and to drive all other mechanisms of the stapling assembly 16.
